

REMARKS/ARGUMENTS

In response to the Office Action mailed February 4, 2008, Applicants amend their application and request continued examination. No claims are added or cancelled in this Amendment so that claims 11, 13, 14, 17-20, and 22-26 remain pending.

The invention concerns a discriminating apparatus or sensor that is employed to detect characteristics of a sheet. More specifically, the apparatus discriminates counterfeit bank notes from genuine bank notes. This result is achieved by directing light from respective emitters toward the sheet and detecting the light reflected from the sheet.

Important features of the invention are described in the patent application with respect to Figures 3A-3E, 4, 5A, 5B, 6A and 6B. All of those figures illustrate an integrated light emitting and detecting unit. Among the important structural features of that unit is the embedding within a transparent body of at least one light emitter and a light detector. Further, on an external surface of that transparent body, there are present at least two lens surfaces, meaning surfaces that have curvature in order to focus light that is exiting from the transparent body or entering the transparent body. This arrangement is illustrated in the figures identified above and described at least with respect to the second embodiment of the invention at pages 21-34 of the patent application.

In this Amendment, the structure of the focusing optical system is described with slightly more precision. Claim 11 is the sole pending independent claim and now describes the light emitter and light detector as being embedded within the transparent body. Essentially the same description appeared in the previously examined claim 11 but the Examiner, as discussed below, did not give a proper interpretation to what was disclosed and claimed. Further, the amended claim makes clear that the lens surfaces are part of the transparent body and are located on an external surface of the transparent body, as described and illustrated in the patent application. Again, this description was a part of examined claim 11 but apparently not given proper interpretation. Claims 24-26

are amended to be consistent with the amendment of claim 11 and are supported by the same portions of the patent application that support amended claim 11.

All pending claims were rejected as either anticipated by or obvious over Voser et al. (U.S. Patent 6,172,745, hereinafter Voser). This rejection is respectfully traversed.

In applying Voser to the previously examined claims, the Examiner acknowledged that Voser describes light emitting elements 8 and 10 that are embedded in respective light guiding elements 16 and 18. Voser describes a light detector 11 that is located between, but not inside, the light guides 16 and 18. The structure shown by Voser also includes a plurality of lenses 20 that are not any part of the light guiding elements. Those conventional lenses are sandwiched by the light guide elements and held in place between the light guide elements by brackets 22.

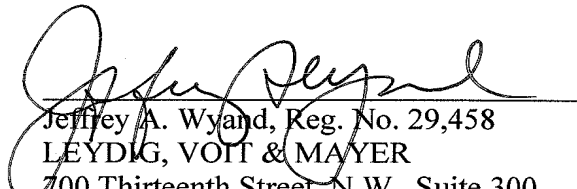
Voser could not have anticipated examined claim 11, nor made any other pending claim unpatentable, because Voser does not describe important elements of examined claim 11. For example, the lenses 20 in Voser are clearly described as separate elements that are clamped between the light guides 16 and 18. The light detectors 12 in Voser are not in, inside, or embedded within any of the light guide elements 16 and 18. Thus, the rejection of examined claim 11 is traversed.

It is even more apparent, based upon the clarified form of claim 11 presented here, that the structure described by that claim cannot be either anticipated by or suggested by Voser. Voser neither describes nor suggests that the light detector should be embedded in the same transparent body in which the light emitters are embedded. It is apparent that Voser is concerned about light loss in the transmission of the reflected light. Moreover, the use of separate lenses, independent of the transparent body, in Voser leads to a complex assembly problem that is not present in the simple structure of invention. The invention simplifies the relative positioning of the one or two light emitters and the light detector, which are fixed in place in the embedding process, and the formation of lenses, because those lenses are surfaces of that transparent body. Those surfaces may be molded in the course of preparing the transparent body and polished, as necessary, to produce the desired optical characteristics.

Accordingly, Voser cannot anticipate or suggest claim 11. The rejection of claims depending from claim 11 as either anticipated or obvious is founded upon the erroneous assertion that Voser anticipates claim 11. Therefore, further discussion of the rejections of the dependent claims is neither necessary nor provided.

Reconsideration and allowance of all claims presented here are earnestly solicited.

Respectfully submitted,



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